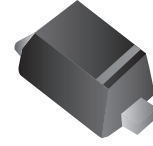


CPDQ3V3-HF

RoHS Device
Halogen Free

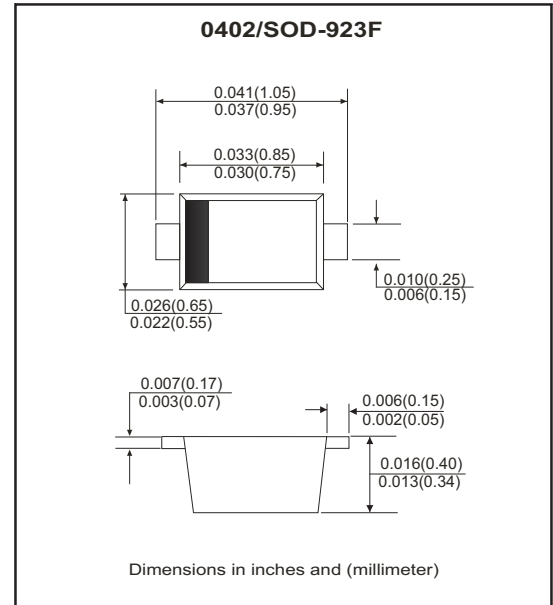


Features

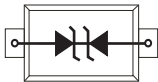
- IEC61000-4-2 Level 4 ESD protection.
- ESD Rating of Class 3 per Human Body Mode.
- Peak Power up to 150 Watts @ 8x20μs Pulse.
- Low Leakage current.
- Response Time is Typically <1ns
- Working Voltage: 3.3V

Mechanical data

- Case: 0402/SOD-923F small outline plastic package.
- Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.
- High temperature soldering guaranteed: 260°C/10 second.
- Weight: 0.001 gram(approx.).



Circuit Diagram



Maximum Rating and Electrical Characteristics (at TA=25 °C unless otherwise specified)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Maximum working Peak Reverse Voltage		V _{RWM}			3.3	V
Maximum diode breakdown voltage	I _R = 1mA	V _{BR}	5.0			V
Maximum reverse leakage current	V _R = 3.3V	I _R			1	μA
Junction capacitance	V _R = 0V, f = 1MHz	C _T		25		pF
ESD capability	IEC 61000-4-2(air)	ESD			15	kV
	IEC 61000-4-2(Contact)	ESD			8	kV
Clamping Voltage	I _{PP} = 5 A, t _p = 8/20us	V _c			8.4	V
	I _{PP} = 11.2 A, t _p = 8/20us	V _c			14.1	V
Peak Pulse Power	T _p = 8/20us	P _{PP}			158	W
Junction temperature		T _j			150	°C
Operation temperature		T _{OP}	-40		125	°C
Storage temperature		T _{STG}	-55		155	°C

NOTES:

1. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C.

RATING AND CHARACTERISTIC CURVES (CPDQ3V3-HF)

Fig. 1 - Pulse Waveform

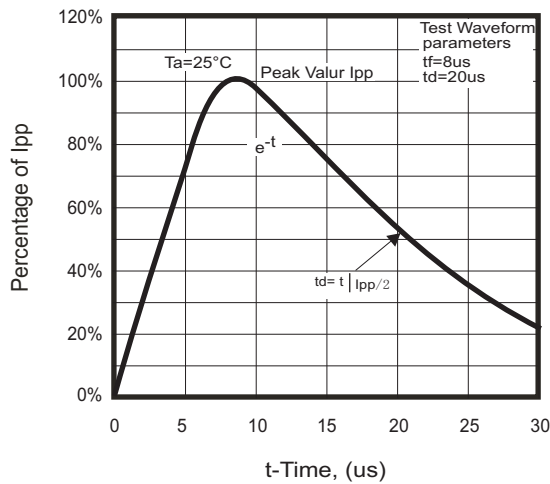
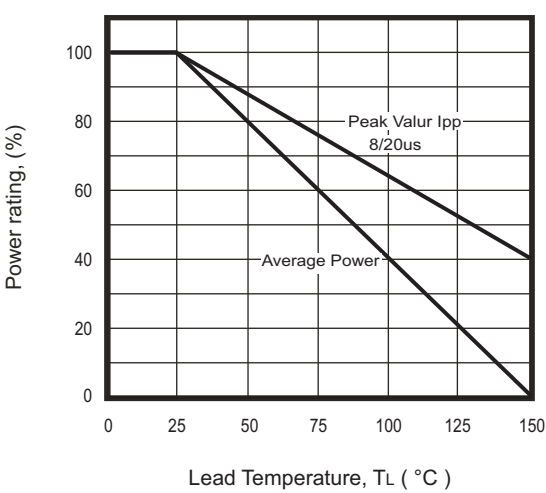
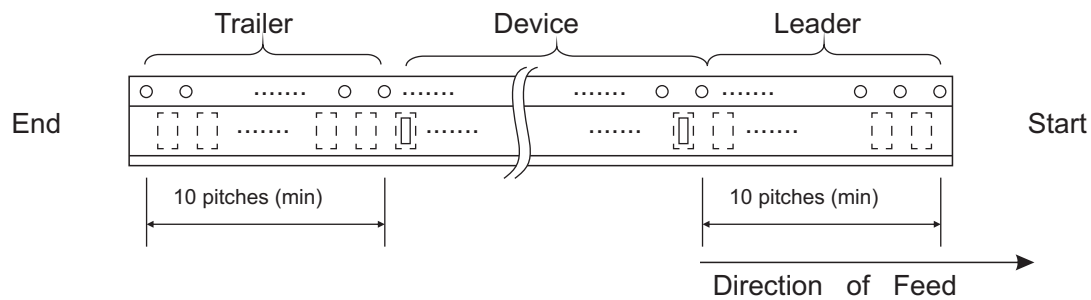
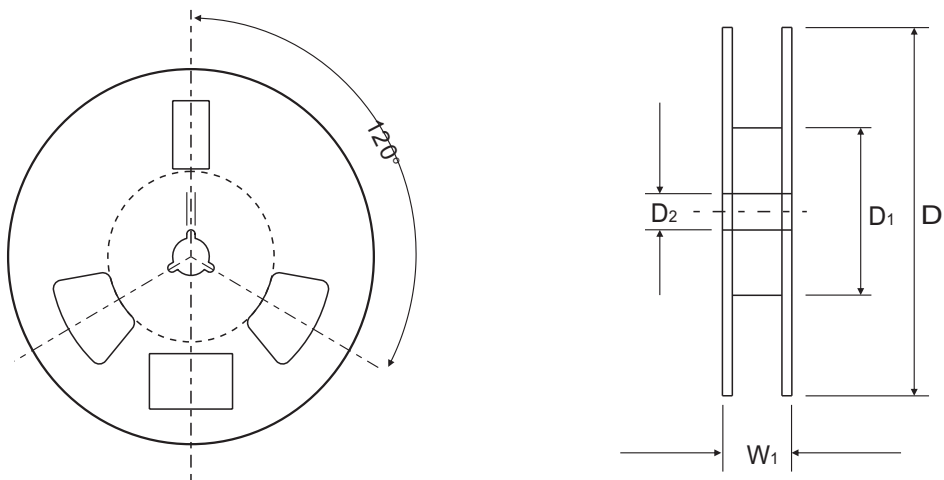
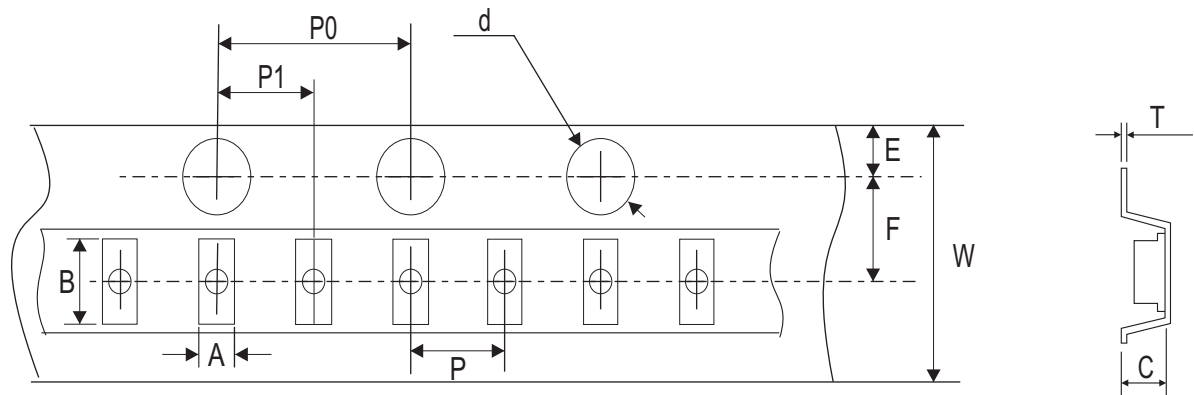


Fig. 2 - Power Derating Curve



Reel Taping Specification



0402 (SOD-923F)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	0.70 ± 0.05	1.12 ± 0.05	2.40 mm	1.50 + 0.10	178 MAX.	50.0 MIN.	13.0 ± 0.50
	(inch)	0.028 ± 0.002	0.044 ± 0.002	0.094 mm	0.059 + 0.004	7.008 MAX.	1.969 MIN.	0.512 ± 0.020

0402 (SOD-923F)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	4.00 ± 0.10	2.00 ± 0.05	0.229 ± 0.020	8.00 +0.30 / -0.10	10.90 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.002	0.157 ± 0.004	0.079 ± 0.002	0.009 ± 0.001	0.314+0.012 / -0.004	0.43 MAX.

Marking Code

Part Number	Marking Code
CPDQ3V3-HF	B



B: Product marking code

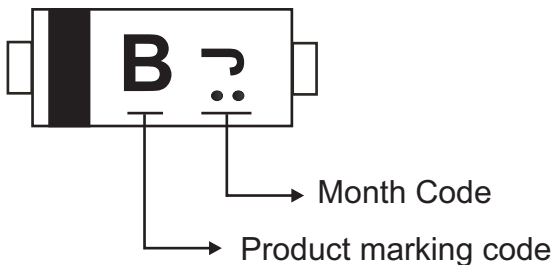
X: Month Code

Month Code:

Month	Odd Year (per A. D.)	Even Year (per A. D.)
Jan	1	E
Feb	2	F
Wer	3	H
Apr	4	J
May	5	K
Jun	6	L
Jul	7	N
Aug	8	P
Sep	9	U
Oct	T	X
Nov	V	Y
Dec	C	Z

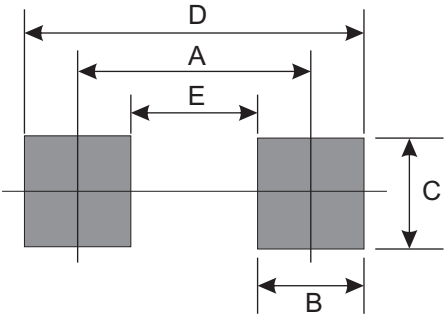
For example as follows:

- Product marking code: B
- Manufacture date_ Year: 2012 (Even year) / Month: Apr
Month code: J (Month code rotated 90° and two dots below the month code.)



Suggested PAD Layout

SIZE	0402/SOD-923F	
	(mm)	(inch)
A	0.900	0.035
B	0.300	0.012
C	0.400	0.016
D	1.200	0.047
E	0.600	0.024



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
0402/SOD-923	8,000	7